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Subject: Fuji Battery Storage Project - Noise Assessment Memorandum

PROJECT DESCRIPTION

The Project proposes the construction and operation of a solar photovoltaic charged battery energy storage system (BESS) on 3.5 acres of property located at 3073 Newtown Road in El Dorado County, California (Project), Assessor's Parcel Number (APN) 048-280-030. The Project Site has a General Plan designation of "Commercial". The site is largely undeveloped with Highway 50 to the north, a storage yard to the west, open space/vacant land to the east, and Earth Traders Premium Landscape directly south of the site. The Project Site would be accessed from Newton Road.

Major components of the Project include battery modules mounted in racks inside of custom manufactured containers, solar photovoltaic (PV) modules mounted on fixed tilt canopy racking, PV panel support structures, inverters and transformers, an electrical collection and distribution system, approximately one acre of fencing, data monitoring equipment as well as the installation of ancillary components to enable its interconnection to the Pacific Gas and Electric (PG&E) Placerville Substation. The Project is anticipated be constructed over a three-to five- month period and is anticipated to operate for a period of up to 25 years.

NOISE ANALYSIS

Fundamentals of Sound and Environmental Noise

Addition of Decibels

The decibel (dB) scale is logarithmic, not linear; therefore, sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions (Federal Transit Administration [FTA] 2018). For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). Under the dB scale, three sources of equal loudness together would produce an increase of 5 dB.

Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates)

at a rate of approximately 6 dB (dBA) for each doubling of distance from a stationary or point source (FHWA 2017). Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dBA for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2017). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dBA per doubling of distance is normally assumed.

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about 5 dBA (FHWA 2006), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction of 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. 2000). To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the "line of sight" between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend length-wise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the line of sight between the source and the receiver.

The manner in which older structures in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (California Department of Transportation [Caltrans] 2002). The exterior-to-interior reduction of newer structures is generally 30 dBA or more (Harris Miller, Miller & Hanson Inc. 2006).

Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL (Community Noise Equivalent Level) are measures of community noise. Each is applicable to this analysis and defined as follows:

- Equivalent Noise Level (Leq) is the average acoustic energy content of noise for a stated period of time. Thus, the Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- Day-Night Average (L_{dn}) is a 24-hour average L_{eq} with a 10-dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn}.

■ Community Noise Equivalent Level (CNEL) is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 p.m. to 10:00 p.m. and a 10-dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60- to 70-dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA), or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA noise levels, the following relationships should be noted in understanding this analysis:

- 1. Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- 2. Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- 3. A change in level of at least 5 dBA is required before any noticeable change in community response would be expected.
- 4. A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Vibration Fundamentals

Ground vibration can be measured several ways to quantify the amplitude of vibration produced. This can be through peak particle velocity or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively. Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

Existing Noise Environment

The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 "Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present" provides a table of approximate background sound levels in L_{dn} , daytime L_{eq} , and nighttime L_{eq} , based on land use and population density. The ANSI standard estimation divides land uses into six distinct categories. Descriptions of these land use categories, along with the typical daytime and nighttime levels, are provided in Table 1. At times, one could reasonably expect the occurrence of periods that are both louder and quieter than the levels listed in the table. ANSI notes, "95% prediction interval [confidence interval] is on the order of +/- 10 dB." The majority of the Project Area would be considered ambient noise Category 5 or 6.

Table 1. ANSI Standard 12.9-2013/Part 3 A-weighted Sound Levels Corresponding to Land Use and Population Density

Category	Land Use	Description	People per Square Mile	Typical CNEL / L _{dn}	Daytime L _{eq}	Nighttime L _{eq}
1	Noisy Commercial & Industrial Areas and Very Noisy Residential Areas	Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or for other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where many motor buses and heavy trucks accelerate.	63,840	67 dBA	66 dBA	58 dBA
2	Moderate Commercial & Industrial Areas and Noisy Residential Areas	Heavy traffic areas with conditions similar to Category 1, but with somewhat less traffic; routes of relatively heavy or fast automobile traffic, but where heavy truck traffic is not extremely dense.	20,000	62 dBA	61 dBA	54 dBA
3	Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas	Light traffic conditions where no mass transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic compose this category.	6,384	57 dBA	55 dBA	49 dBA
4	Quiet Urban & Normal Suburban Residential Areas	These areas are similar to Category 3, but for this group, the background is either distant traffic or is unidentifiable; typically, the population density is one-third the density of Category 3.	2,000	52 dBA	50 dBA	44 dBA
5	Quiet Residential Areas	These areas are isolated, far from significant sources of sound, and may be situated in shielded areas, such as a small wooded valley.	638	47 dBA	45 dBA	39 dBA
6	Very Quiet Sparse Suburban or rural Residential Areas	These areas are similar to Category 4 but are usually in sparse suburban or rural areas; and, for this group, there are few if any nearby sources of sound.	200	42 dBA	40 dBA	34 dBA

Source: The American National Standards Institute (ANSI) 2013

Noise-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest sensitive receptors to the Project Site are residences located within the Golden West Mobile Park adjacent to the southeast boundary of the Project Site.

Regulatory Framework

El Dorado County General Plan Public, Health, Safety, and Noise Element

The Public Health, Safety, and Noise Element of the El Dorado County General Plan provides a basis for comprehensive local policies to control and abate environmental noise and to protect the citizens of the County from excessive noise exposure. By identifying noise-sensitive land uses and establishing compatibility guidelines for land use and noises, noise considerations will influence the general distribution, location, and intensity of future land uses. The result is that effective land use planning and mitigation can alleviate the majority of noise problems. The County defines "community regions" as areas that are appropriate for the highest intensity of self-sustaining compact urban development or suburban development. The County defines "rural centers" as areas of higher intensity development located throughout the rural areas of the County based on the availability of infrastructure, public services, existing uses, parcel size, and impacts on natural resources. The County classifies all lands not contained within the boundaries of a "community region" or a "rural center" as "rural regions". The portion of the County containing the Project Site is classified as a "rural region".

The following Public Health, Safety, and Noise Element goals are applicable to the Proposed Project:

- **Policy 6.5.1.2** Where proposed non-residential land uses are likely to produce noise levels exceeding the performance standards of Table 6-2 (Table 2 in this analysis) at existing or planned noise-sensitive uses, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design.
- Policy 6.5.1.3 Where noise mitigation measures are required to achieve the standards of Table 6-2 (Table 2 in this analysis), the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered a means of achieving the noise standards only after all other practical design-related noise mitigation measures have been integrated into the project and the noise barriers are not incompatible with the surroundings.
- **Policy 6.5.1.7** Noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table 6-2 (Table 2 in this analysis) for noise-sensitive uses.

Table 2. Noise Level Performance Protection Standards for Noise Sensitive Land Uses Affected by Non-Transportation Sources

Noise Level Descriptor	Daytime 7:00 a.m. – 7:00 p.m.	Evening 7:00 p.m. – 10:00 p.m.	Night 10:00 p.m. – 7:00 a.m.	
	Rural Rural		Rural	
Hourly L _{eq} , dB	50	45	40	
Maximum level, dB	60	55	50	

Source: El Dorado County 2019

Notes

Each of the noise levels specified above shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the Project Site.

In Community areas the exterior noise level standard shall be applied to the property line of the receiving property. In Rural Areas the exterior noise level standard shall be applied at a point 100' away from the residence. The above standards shall be measured only on property containing a noise sensitive land use as defined in Objective 6.5.1. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all effected property owners and approved by the County.

Policy 6.5.1.11 The standards outlined in Table 6-5 (Table 3 in this analysis) shall not apply to those activities associated with actual construction of a project as long as such construction occurs between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and on federally-recognized holidays. Further, the standards outlined in Table 6-5 (Table 3 in this analysis) shall not apply to public projects to alleviate traffic congestion and safety hazards.

Table 3. Maximum Allowable Noise Exposure for Non-Transportation Noise Sources in Rural Regions – Construction Noise

Notes Level Descriptor	Time Devied	Noise Level (dB)		
Noise Level Descriptor	Time Period	L _{eq}	L _{max}	
	7:00 a.m. – 7:00 p.m.	50	60	
All Residential	7:00 p.m. – 10:00 p.m.	45	55	
	10:00 p.m. – 7:00 a.m.	40	50	
Commercial, Recreation, and Public Facilities	7:00 a.m. – 7:00 p.m.	65	75	
	7:00 p.m. – 7:00 a.m.	60	70	
Rural Land, Natural Resources,	7:00 a.m. – 7:00 p.m.	65	75	
Open Space, and Agricultural Lands	7:00 p.m. – 7:00 a.m.	60	70	

Source: El Dorado County 2019

El Dorado County Municipal Code

The County's regulations with respect to noise are included in Chapter 130.37, Noise Standards, of the County Code. Section 130.37.060 outlines both transportation and non-transportation noise standards that apply to all development projects for which an acoustical analysis is required. Table 4 identifies County noise standards for non-transportation sources. Since the Project would not generate substantial amounts of traffic, County transportation noise standards are omitted.

Table 4. Noise Level Performance Standards for Noise Sensitive Land Uses Affected by Non-Transportation Sources

Noise Level Descriptor	_	time - 7 p.m.)		ning 10 p.m.)	Night (10. p.m. – 7 a.m.)		
Community/Rural Centers	•		Rural Regions	Community/ Rural Centers	Rural Regions	Community/ Rural Centers	
Hourly L _{eq} , dBA	55	50	50	45	45	40	
Maximum level, dB	70	60	60	55	55	50	

Source: El Dorado County 2024

El Dorado Airport Land Use Compatibility Plan

The following Noise Compatibility policies, promulgated from the El Dorado Airport Land Use Compatibility Plan, are applicable to the Project:

- **Policy 4.2.1.** Evaluating Noise Compatibility: The noise compatibility of proposed land uses within the influence area of each airport addressed in this Airport Land Use Compatibility Plan (ALUCP) shall be evaluated in accordance with the policies set forth in this section together with Table 1, Noise Compatibility Criteria, and the Noise Zone Policy Map for each airport provided in Chapter 6 of the ALUCP.
 - (A) The criteria in Table 1, Noise Compatibility Criteria, indicate the maximum acceptable noise exposure for a range of land uses that may be proposed within the airport vicinity. Within the various noise exposure ranges, each land use type is shown as being either "normally compatible," "conditional," or "incompatible." The meaning of these terms is stated in the table and differs for indoor versus outdoor uses.
- **Policy 4.2.2.** *Maximum Acceptable Exterior Noise Levels*: To minimize noise-sensitive development in areas exposed to significant levels of aircraft noise, new land use development shall be restricted in accordance with the following.
 - (A) Within the airport-related CNEL 60 dB contour, new residential development—the creation of new residential lots or increase in density on existing lots—shall be prohibited. However, a portion of a residential lot that does not contain a dwelling site may extend into the CNEL 60 dB contour. Exceptions also are provided for existing residential lots (see Policy 2.3.4).
 - (B) New nonresidential development shall be deemed incompatible in locations where the airport-related noise exposure would be highly disruptive to the specific land use. Applicable criteria are indicated in Table 1, Noise Compatibility Criteria [of the Compatibility Plan].

Noise Impacts

Methodology

This analysis of the existing and future noise environments is based on noise prediction modeling and empirical observations. In order to estimate the worst-case construction noise levels that may occur at the nearest noise-sensitive receptors in the Project vicinity, predicted construction noise levels were calculated utilizing the FHWA's Roadway Construction Model (2006). Operational noise levels are addressed qualitatively with reference measurements taken by ECORP Consulting, Inc. Groundborne vibration levels associated with construction-related activities for the Project were evaluated utilizing typical groundborne vibration levels associated with construction equipment, obtained from the Caltrans guidelines set forth above. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated, taking into account the distance from construction activities to nearby land uses.

Impact Discussion

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The significance criteria promulgated by the County's General Plan may be relied upon to make impact determinations.

Would the Project result in a generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise sensitive and may warrant unique measures for protection from intruding noise. The nearest sensitive receptors to the Project Site are residences of the Golden West Mobile Park located adjacent to the southeast boundary of the Project Site.

Onsite Construction Noise

Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., site preparation, grading and battery storage implementation).

Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

As previously described, the nearest existing noise-sensitive land uses to the Project Site are residences located adjacent to the southeast boundary of the Project Site. However, it is acknowledged that the majority of construction equipment is not situated at any one location during construction activities, but rather spread throughout the Project site and at various distances from sensitive receptors. Therefore, this analysis employs FTA guidance for calculating construction noise, which recommends measuring construction noise produced by all construction equipment from the center of the Project Site (FTA 2018), which in this case is approximately 225 feet from the property line of the mobile home park. As previously described, the County's General Plan Public Health, Safety and Noise Element Policy 6.5.1.11 states construction equipment operation is exempt from County noise standards between the hours of 7:00 a.m.

to 7:00 p.m. Monday through Friday, and between 8:00 a.m. and 5:00 p.m. on weekends and holidays. It is typical to regulate construction noise in this manner since construction noise is temporary, short term, intermittent in nature, and would cease on completion of the Project.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptor in the Project vicinity during the exempt hours in order to evaluate the potential health-related effects (physical damage to the ear) from construction noise, the construction equipment noise levels were calculated using the Roadway Noise Construction Model and compared against the health-related noise level threshold established in the *Criteria for a Recommended Standard: Occupational Noise Exposure* prepared in 1998 by National Institute for Occupational Safety and Health (NIOSH). A division of the US Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receptors.

The anticipated short-term construction noise levels generated for the necessary construction equipment are presented in Table 5.

Table 5. Construction Average (c	IBA) Noise Levels at Nearest Recepto	r- Project Site	
Equipment	Estimated Exterior Construction Noise Level at Nearest Residences	Construction Noise Standards (dBA Leq)	Exceeds Standards?
	Site Preparation	,	
Rubber Tired Dozers (3)	64.6 dBA (each)	85	No
Tractors (4)	67.0 dBA (each)	85	No
Combined Site Preparation Equipment	74.2 dBA	85	No
	Grading	•	
Crane (1)	63.7 dBA	85	No
Grader (1)	68.0 dBA	85	No
Rubber Tired Dozer (1)	64.6 dBA	85	No
Tractors (4)	67.0 dBA (each)	85	No
Combined Grading Equipment	74.2 dBA	85	No
	Mechanical & Electrical Work	•	
Cranes (1)	59.5 dBA	85	No
Gradalls (3)	66.4 dBA (each)	85	No
Generator Sets (1)	64.6 dBA	85	No
Tractors (3)	67.0 dBA	85	No
Welders (1)	57.0 dBA	85	No
Combined Mechanical & Electrical Work	75.1 dBA	85	No
	Paving		
Cement and Mortar Mixers (2)	61.8 dBA (each)	85	No
Pavers (1)	61.1 dBA	85	No
Paving Equipment (2)	69.4 dBA	85	No
Rollers (2)	59.9 dBA	85	No
Tractor (1)	67.0 dBA	85	No
Combined Paving	74.6 dBA	85	No
	Architectural Coating		
Air Compressors (1)	60.6 dBA	85	No
Combined Architectural Coating	60.6 dBA	85	No

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Attachment A for Model Data Outputs.

Notes: Construction equipment used during construction derived from the California Emission Estimator Model (CalEEMod) 2020.4.0. CalEEMod contains default construction equipment and usage parameters for typical construction projects based on several construction surveys conducted in order to identify such parameters. Consistent with FTA recommendations for calculating construction noise, construction noise was measured from the center of the Project Site (FTA 2018), which is 225 feet from the property line of the adjacent mobile home park.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time.

As shown in Table 5, during construction activities no individual piece of construction equipment would exceed the NIOSHA threshold of 85 dBA L_{eq} at the nearest residences to the Project Site.

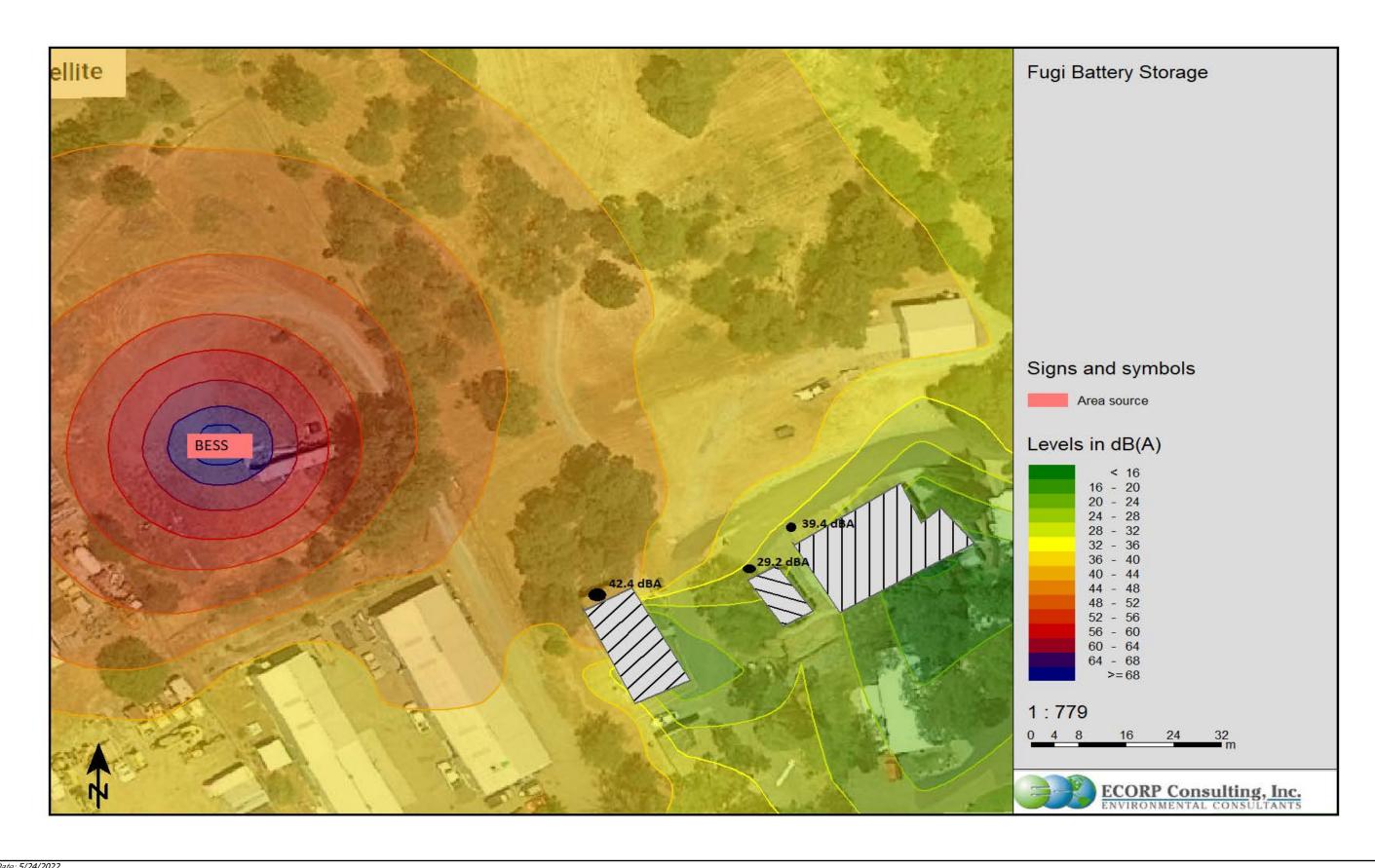
Operational Noise

The proposed BESS would include battery modules mounted in racks inside of custom manufactured containers, solar PV modules mounted on fixed tilt canopy racking, PV panel support structures, inverters and transformers, an electrical collection and distribution system. Though the batteries themselves generate negligible levels of noise, the inverters, transformers, and heating ventilation and air conditioning (HVAC) equipment associated with the BESS are sources of noise. On-site Project operations have been calculated using the SoundPLAN 3D noise model. The results of this model can be found in Attachment B. Table 6 shows the predicted Project noise levels at three locations in the Project vicinity, as predicted by SoundPLAN. These three locations represent the three nearest residences to the Project Site. Additionally, a noise contour graphic (see Figure 1) has been prepared to provide a visual depiction of the predicted noise levels in the Project vicinity from Project operations.

Table 6. Modeled Operational Noise Levels					
Location	Modeled Operational Noise Attributed to Project (dBA L _{eq})	County Noise Standard Day/Evening/Night (dBA L _{eq})			
Residence #1 to the Southeast	42.4 dBA	60 / 55 / 50			
Residence #2 to the Southeast	39.4 dBA	60 / 55 / 50			
Residence #3 to the Southeast	29.2 dBA	60 / 55 / 50			

Source: Stationary source noise levels were modeled by ECORP Consulting using SoundPLAN 3D noise model. Refer to Attachment B for noise modeling assumptions and results.

As shown in Table 6, the modeled operational noise levels as a result of operational activities on the Project Site would not exceed the daytime, evening, or nighttime noise standards for the vicinity residential land uses when compared to the thresholds defined in the County General Plan. Also, the Project will not exceed the non-transportation noise source thresholds provided in the County's Municipal Code, as identified in Table 4 above.



Map Date: 5/24/2022 Photo (or Base) Source: SoundPLAN 2022 ECORP Consulting, Inc. ENVIRONMENTAL CONSULTANTS

Would the Project Result the Generation of Excessive Groundborne Vibration or Groundborne Noise Levels?

Construction Vibration Impacts

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the proposed Project would be primarily associated with short-term construction-related activities. Construction on the Project Site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is not anticipated that pile drivers would be necessary during Project implementation. Vibration decreases rapidly with distance, and it is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 7.

Table 7. Typical Construction Equipment Vibration Levels				
Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)			
Vibratory Roller	0.210			
Hoe Ram (Rock Breaker)	0.089			
Large Bulldozer	0.089			
Caisson Drilling	0.089			
Loaded Trucks	0.076			
Jackhammer	0.035			
Small Bulldozer/Tractor	0.003			

Source: FTA 2018

The County does not regulate vibrations associated with construction. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans (2020) recommended standard of 0.2 inch per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings. Consistent with FTA recommendations for calculating vibration generated from construction equipment, construction vibration was measured from the center of the Project Site (FTA 2018). The nearest structure of concern to the construction site, with regard to groundborne vibrations, is a large building associated with the landscape company directly south of the Project Site, located approximately 155 feet south from the Project Site center.

Based on the representative vibration levels presented for various construction equipment types in Table 7 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels. The FTA provides the following equation:

[PPVequip = PPVref x
$$(25/D)^{1.5}$$
]

Table 8 presents the expected Project related vibration levels at a distance of 155 feet.

Table 8. Project Construction Vibration Levels at 155 Feet									
		Receiver	PPV Levels	(in/sec) ¹					
Vibratory Roller	Large Bulldozer	Drilling	Loaded Trucks	Rock Breaker	Jack- hammer	Small Bulldozer	Peak Vibration	Threshold	Exceed Threshold?
0.013	0.005	0.005	0.004	0.05	0.002	0.000	0.013	0.02	No

¹Based on the Vibration Source Levels of Construction Equipment included on Table 2 (FTA 2018).

As shown, vibration as a result of construction activities would not exceed 0.2 PPV at the nearest structure. Thus, Project construction would not exceed the recommended threshold.

Operational Vibration Impacts

Project operations would not include the use of any stationary equipment that would result in excessive groundborne vibration levels. Therefore, the Project would result in no groundborne vibration impacts during operations.

Would the Project Expose People Residing or Working in the Project Area to Excessive Airport Noise Levels?

The Placerville Airport is located less than one mile (4,983 feet) southwest of the Project Site. As shown on the Placerville Airport Land Use Compatibility Plan Airport Noise Zones Policy Map (El Dorado 2012), the Proposed Project lies just outside of the 55-60 dBA CNEL contour lines, and inside the Airport Influence Area contour line. According to the APLUCP's policies described previously, land uses proposed for development that fall within the Airport Influence Area are subject to policies 4.2.2 and 4.2.3. Policy 4.2.2 addresses new nonresidential development in locations where the airport-related exterior noise exposure would be highly disruptive to the specific land use, and Policy 4.2.3 limits the development of land uses that would experience aircraft-related interior noise levels that could cause disruption to activities associated with the specific land use. However, as stated above, the Project Site lies outside of the CNEL contour lines associated with aircraft-related noise levels that would exceed interior/exterior levels that could cause disruption to the specific land use, and therefore would not expose people working during construction or maintaining the facility to excessive airport noise.

REFERENCES

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ATTACHMENT A

Federal Highway Administration Highway Roadway Construction Noise Model – Project Construction Noise

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/9/2022 **Case Description:** Site Preparation

Description Affected Land Use

Site Preparation Residential

	Equipment					
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Dozer	No	40		81.7	225	0
Dozer	No	40		81.7	225	0
Dozer	No	40		81.7	225	0
Tractor	No	40	84		225	0
Tractor	No	40	84		225	0
Tractor	No	40	84		225	0
Tractor	No	40	84		225	0

Equipment		*Lmax	Leq
Dozer		68.6	64.6
Dozer		68.6	64.6
Dozer		68.6	64.6
Tractor		70.9	67
	Total	70.9	74.6

^{*}Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/9/2022
Case Description: Grading

Description Affected Land Use

Grading Residential

	Equipment				
			Spec	Actual	Receptor
	Impact		Lmax	Lmax	Distance
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)
Excavator	No	40		80.7	225
Grader	No	40	85		225
Dozer	No	40		81.7	225
Tractor	No	40	84		225
Tractor	No	40	84		225
Tractor	No	40	84		225

Equipment		*Lmax	Leq
Excavator		67.6	63.7
Grader		71.9	68
Dozer		68.6	64.6
Tractor		70.9	67
Tractor		70.9	67
Tractor		70.9	67
	Total	71.9	74.2

^{*}Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),

Report date: 5/9/2022

Case Description: Mechanical & Electrical Work

DescriptionLand UseMechanical & Electrical WorkResidential

			Equipment		
			Spec	Actual	Receptor
	Impact		Lmax	Lmax	Distance
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)
Crane	No	16		80.6	225
Gradall	No	40		83.4	225
Gradall	No	40		83.4	225
Gradall	No	40		83.4	225
Generator	No	50		80.6	225
Tractor	No	40	84		225
Tractor	No	40	84		225
Tractor	No	40	84		225
Welder / Torch	No	40		74	225

Equipment		*Lmax	Leq	
Crane		67.5	5 59.	5
Gradall		70.3	66.	4
Gradall		70.3	66.	4
Gradall		70.3	66.	4
Generator		67.6	64.	6
Tractor		70.9	6	7
Tractor		70.9	6	7
Tractor		70.9	9 6	7
Welder / Torch		60.9	5	7
	Total	70.9	75.	1

^{*}Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/9/2022 **Case Description:** Paving

Description Land Use Paving Residential

		ļ	Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Concrete Mixer Truck	No	40		78.8	225	0
Concrete Mixer Truck	No	40		78.8	225	0
Paver	No	50		77.2	225	0
Pavement Scarafier	No	20		89.5	225	0
Pavement Scarafier	No	20		89.5	225	0
Roller	No	20		80	225	0
Roller	No	20		80	225	0
Tractor	No	40	84		225	0

Equipment	*Lmax	Leq
Concrete Mixer Truck	65.7	61.8
Concrete Mixer Truck	65.7	61.8
Paver	64.2	61.1
Pavement Scarafier	76.4	69.4
Pavement Scarafier	76.4	69.4
Roller	66.9	59.9
Roller	66.9	59.9
Tractor	70.9	67
Total	76.4	74.6

^{*}Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 5/9/2022

Case Description: Architectural Coating

DescriptionArchitectural Coating
Residential

Equipment Spec Actual Receptor Estimated **Impact** Lmax Lmax Distance Shielding Description Usage(%) (dBA) **Device** (dBA) (feet) (dBA) Compressor (air) 40 77.7 225 0 No

Calculated (dBA)

 Equipment
 *Lmax
 Leq

 Compressor (air)
 64.6
 60.6

 Total
 64.6
 60.6

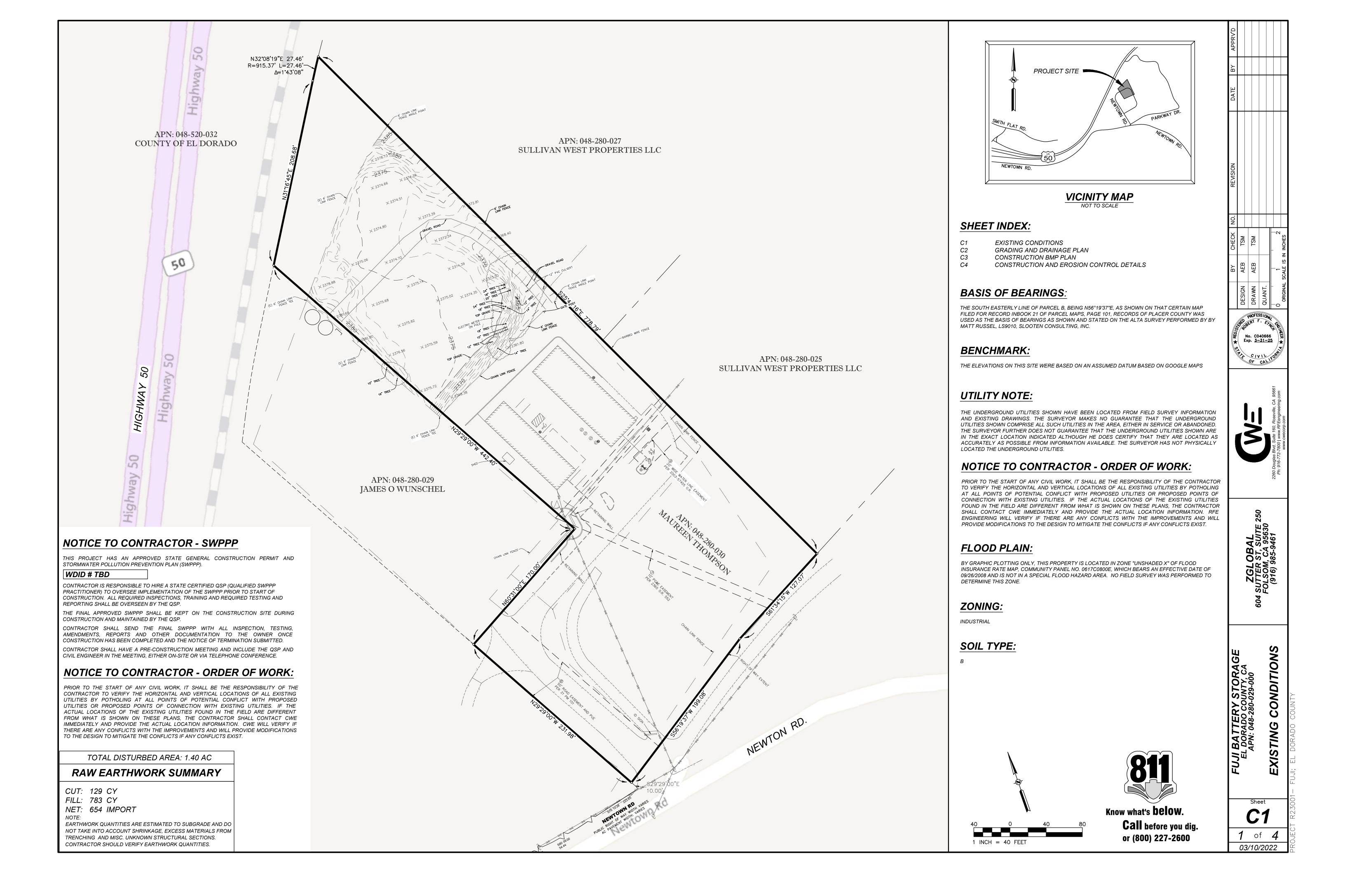
^{*}Calculated Lmax is the Loudest value.

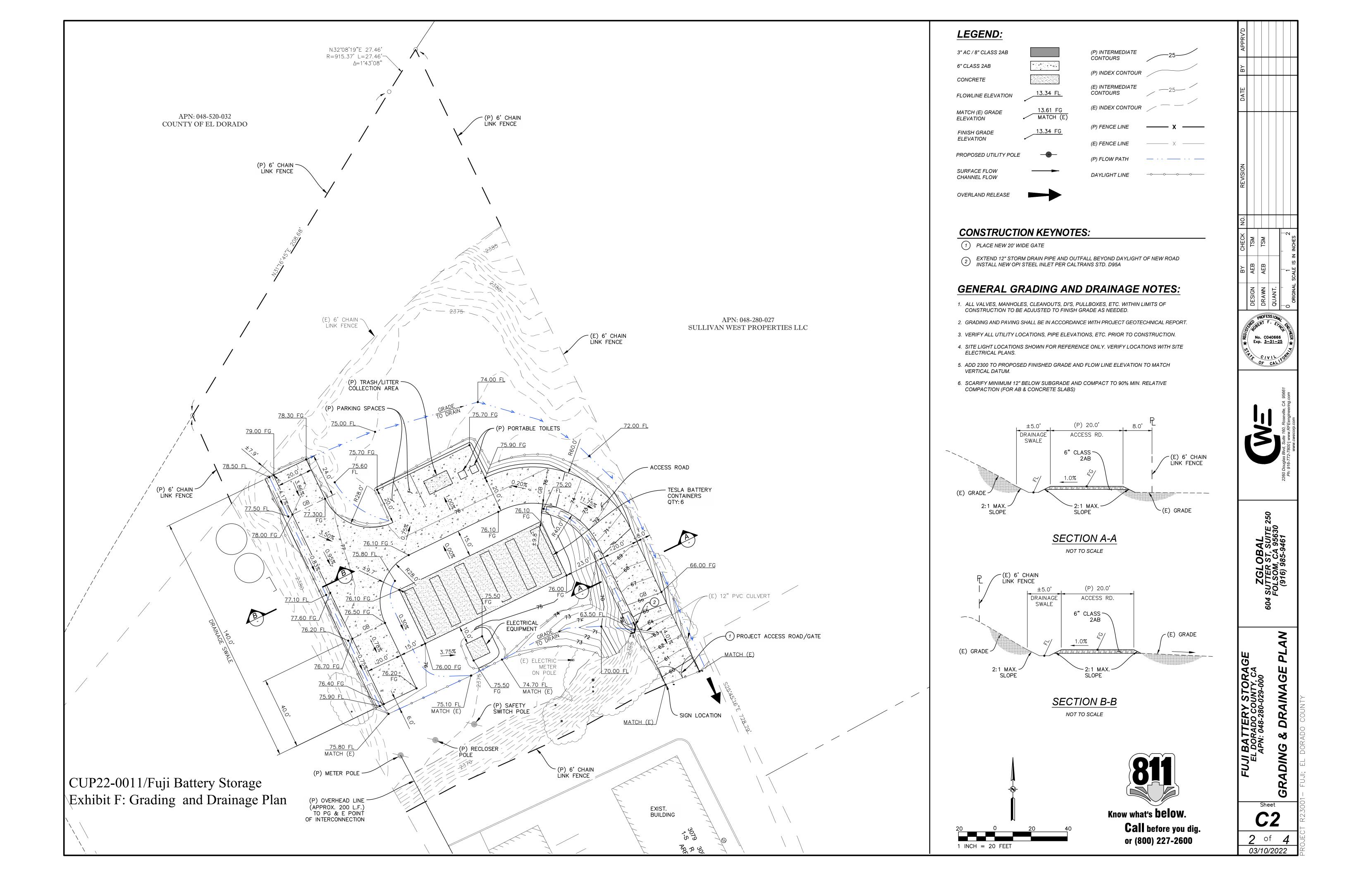
ATTACHMENT B

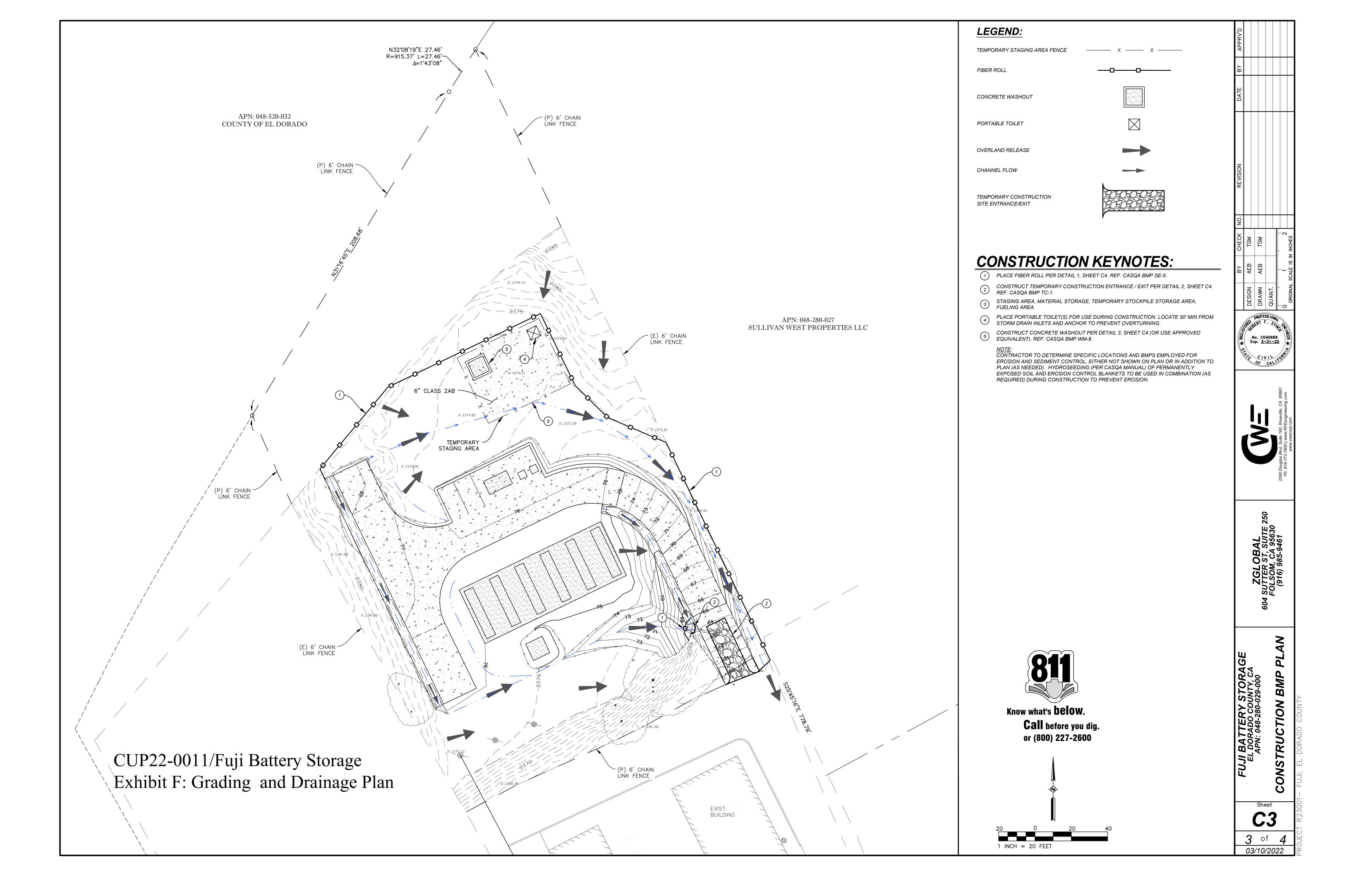
SoundPLAN Outputs – Onsite Project Noise

SoundPLAN Output Source Information

Number	Reciever Name	Location	Level at Ground Floor
1	Residential	Residential to the Southeast of the Project Site	42.4 dBA
2	Residential	Residential to the Southeast of the Project Site	39.4 dBA
3	Residential	Residential to the Southeast of the Project Site	29.2 dBA
Number	Noise Source Information	Citation	Level at Source
1	internal circulation/ parking lot & shop activity	City of Santa Paula. 2017. Santa Paula Battery Energy Storage System Draft Initial Study - Mitigated Negative Declaration. Project NO. 16-CUP-06	73.0 dBA







EROSION AND SEDIMENT CONTROL NOTES:

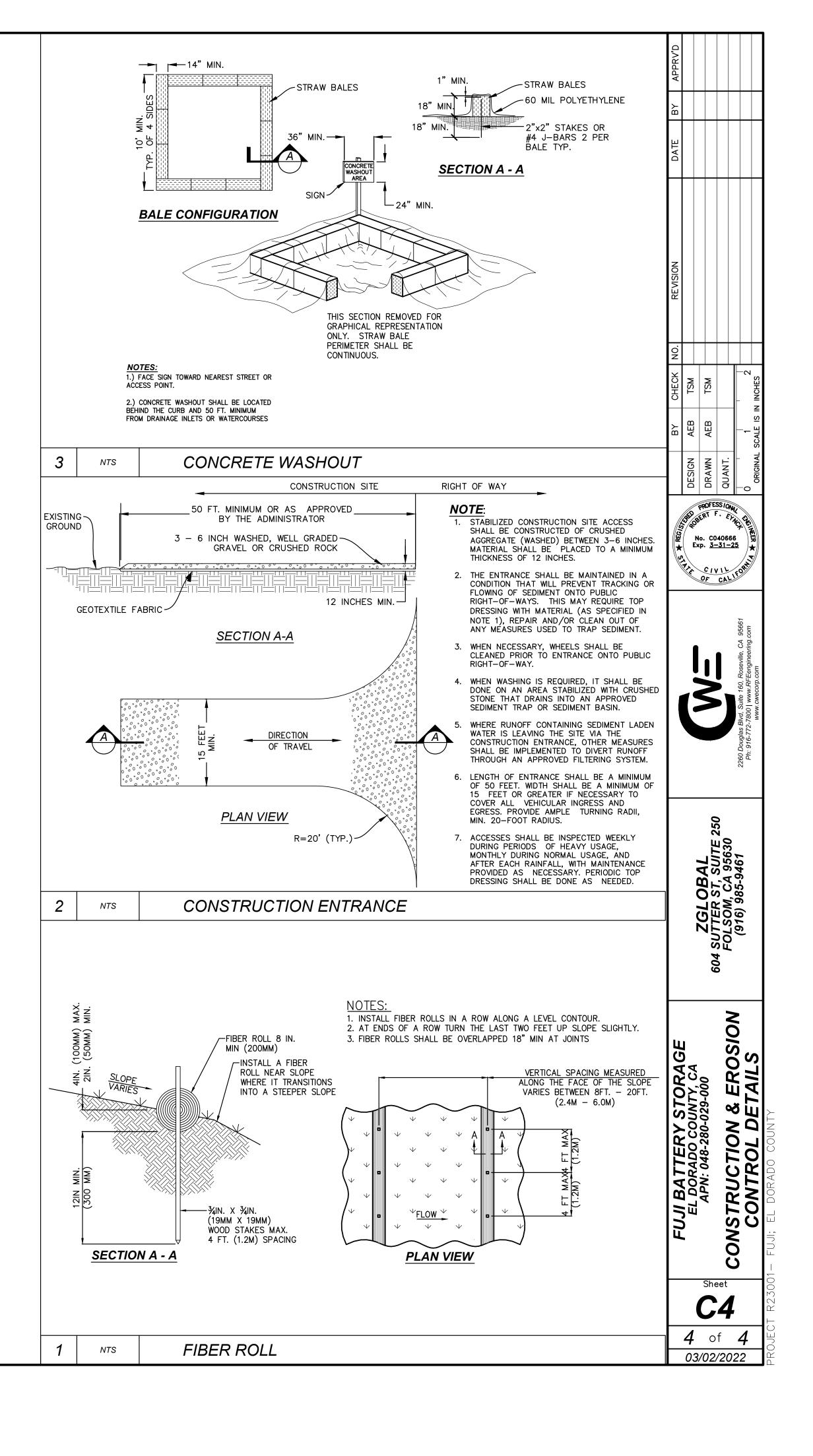
- 1. THE CONTRACTOR SHALL FOLLOW ALL JURISDICTIONAL GUIDELINES FOR GRADING AND THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN OR STATED ON THESE PLANS.
- CONTRACTOR MUST ENSURE THAT THE CONSTRUCTION SITE IS PREPARED PRIOR TO THE ONSET OF ANY STORM. CONTRACTOR SHALL HAVE ALL EROSION AND SEDIMENT CONTROL MEASURES IN PLACE FOR THE WINTER MONTHS PRIOR
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED. CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF A REPRESENTATIVE OF THE DEPARTMENT OF UTILITIES.
- THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS MAY BE MADE TO THE PLAN IN THE FIELD SUBJECT TO THE APPROVAL OF OR AT THE DIRECTION OF A REPRESENTATIVE OF THE DEPARTMENT OF UTILITIES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED BEFORE AND AFTER ALL STORMS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- 6. CONTRACTOR SHALL MAINTAIN A LOG AT THE SITE OF ALL INSPECTIONS OR MAINTENANCE OF BMPS, AS WELL AS, ANY CORRECTIVE CHANGES TO THE BMPS OR EROSION AND SEDIMENT CONTROL PLAN.
- IN AREAS WHERE SOIL WILL BE EXPOSED LONGER THAN 14 DAYS, CONTRACTOR SHALL STABILIZE EXPOSED SOILS WITH HYDROSEEDING OR OTHER EQUIVALENT METHOD. CONTRACTOR SHALL ENSURE NO AREAS WILL BE LEFT EXPOSED OVER THE WINTER SEASON.
- 8. THE CONTRACTOR SHALL INSTALL THE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO COMMENCEMENT OF GRADING. LOCATION OF THE ENTRANCE MAY BE ADJUSTED BY THE CONTRACTOR TO FACILITATE GRADING OPERATIONS. ALL CONSTRUCTION TRAFFIC ENTERING THE PAVED ROAD MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE. THE STABILIZED CONSTRUCTION ENTRANCE SHALL REMAIN IN PLACE UNTIL THE ROAD BASE ROCK COURSE IS COMPLETED.
- 9. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE SWEPT AT THE END OF EACH WORKING DAY OR AS NECESSARY.
- 10. CONTRACTOR SHALL PLACE GRAVEL BAG BARRIERS AROUND ALL NEW DRAINAGE STRUCTURE OPENINGS IMMEDIATELY AFTER THE STRUCTURE OPENING IS CONSTRUCTED. THESE GRAVEL BAG BARRIERS SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.
- 11. SOIL STOCKPILE SHALL BE SURROUNDED BY STRAW WATTLE. CONTRACTOR SHALL COVER STOCKPILE WHEN NOT IN USE.

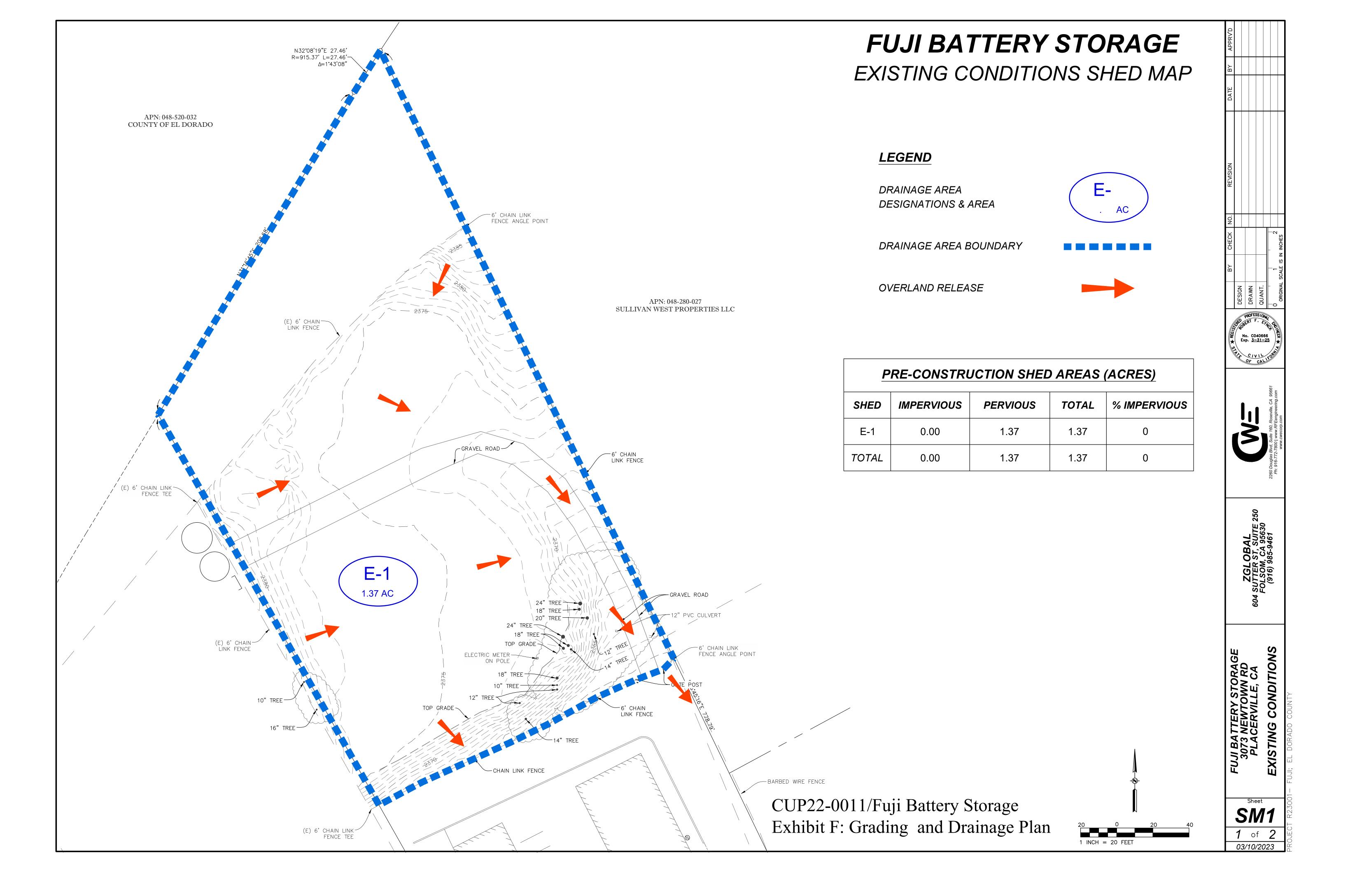
- 12. CONTRACTOR SHALL IMPLEMENT HOUSEKEEPING PRACTICES AS FOLLOWS:
 - A. SOLID WASTE MANAGEMENT: PROVIDE DESIGNATED WASTE COLLECTION AREAS AND CONTAINERS. ARRANGE FOR REGULAR REMOVAL AND DISPOSAL. CLEAR SITE OF TRASH INCLUDING ORGANIC DEBRIS, PACKAGING MATERIALS, SCRAP OR SURPLUS BUILDING MATERIALS AND DOMESTIC WASTE DAILY.
 - MATERIAL DELIVERY AND STORAGE: PROVIDE A DESIGNATED MATERIAL STORAGE AREA WITH SECONDARY CONTAINMENT SUCH AS BERMING. STORE MATERIAL ON PALLETS AND PROVIDE COVERING FOR SOLUBLE MATERIALS. RELOCATE STORAGE AREA INTO BUILDING SHELL WHEN POSSIBLE. INSPECT AREA WEEKLY.
 - CONCRETE WASTE: PROVIDE A DESIGNATED AREA FOR A TEMPORARY PIT TO BE USED FOR CONCRETE TRUCK WASH-OUT. DISPOSE OF HARDENED CONCRETE OFFSITE. AT NO TIME SHALL A CONCRETE TRUCK DUMP ITS WASTE AND CLEAN ITS TRUCK INTO THE CITY STORM DRAINS VIA CURB AND GUTTER. INSPECT DAILY TO CONTROL RUNOFF, AND WEEKLY FOR REMOVAL OF HARDENED CONCRETE.
 - PAINT AND PAINTING SUPPLIES: PROVIDE INSTRUCTION TO EMPLOYEES AND SUBCONTRACTORS REGARDING REDUCTION OF POLLUTANTS INCLUDING MATERIAL STORAGE, USE, AND CLEAN UP. INSPECT SITE WEEKLY FOR EVIDENCE OF IMPROPER
 - VEHICLE FUELING, MAINTENANCE AND CLEANING: PROVIDE A DESIGNATED FUELING AREA WITH SECONDARY CONTAINMENT SUCH AS BERMING. DO NOT ALLOW MOBILE FUELING OF EQUIPMENT. PROVIDE EQUIPMENT WITH DRIP PANS. RESTRICT ON-SITE MAINTENANCE AND CLEANING OF EQUIPMENT TO A MINIMUM. INSPECT AREA WEEKLY.
 - HAZARDOUS WASTE MANAGEMENT: PREVENT THE DISCHARGE OF POLLUTANTS FROM HAZARDOUS WASTES TO THE DRAINAGE SYSTEM THROUGH PROPER MATERIAL USE, WASTE DISPOSAL AND TRAINING OF EMPLOYEES. HAZARDOUS WASTE PRODUCTS COMMONLY FOUND ON-SITE INCLUDE BUT ARE NOT LIMITED TO PAINTS & SOLVENTS, PETROLEUM PRODUCTS, FERTILIZERS, HERBICIDES & PESTICIDES, SOIL STABILIZATION STABILIZATION PRODUCTS, ASPHALT PRODUCTS AND
- 13. THE FOLLOWING SOIL WIND EROSION CONTROL (DUST CONTROL) METHODS ARE PROPOSED AS PART OF THESE
 - A. WATER THE SOIL OF THE SITE AND THE ADJACENT STREETS BEING USED IN CONNECTION WITH SOIL DISTURBANCE OPERATIONS ON THE SITE IN ACCORDANCE WITH CALTRANS STANDARDS.
 - COVER EXPOSED SOIL WITH GRAVEL OR ROCK LANDSCAPING.
 - COVER EXPOSED SOIL WITH ORGANIC MULCHES, SPRINKLER IRRIGATED.
 - IRRIGATE GRASSES. MAINTAIN LANDSCAPE VEGETATION.

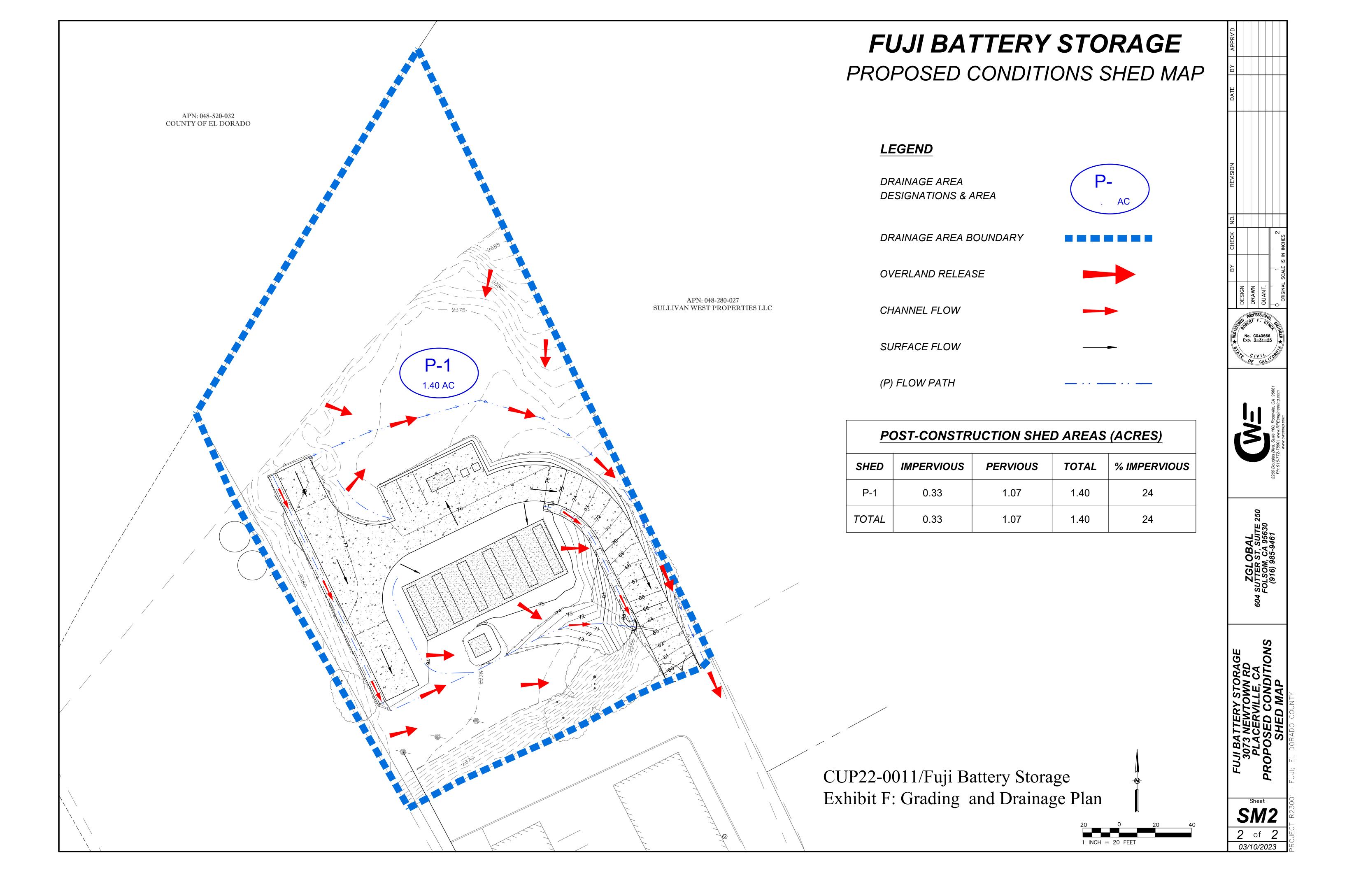
CONCRETE CURING PRODUCTS.

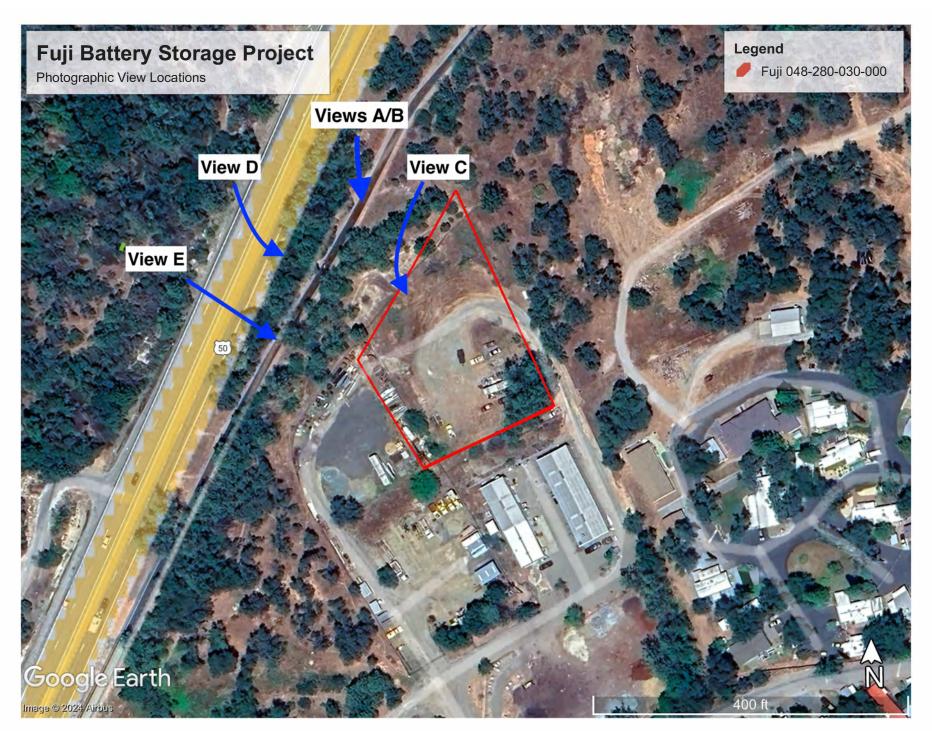
PHASE OF CONSTRUCTION		(WET	SEASON)		(WET AND DRY SEASON)						(WET AND DRY SEASON)		Г
	HYDRO- SEEDING	STRAW MULCHING & TACKIFIER	PRESERVATION OF EXISTING VEGETATION	SOIL BINDERS	FIBER ROLLS	OUTLET PROTECTION	STORM DRAIN INLET PROTECTION	DEWATERING	STABILIZED CONSTRUCTION ENTRANCE	MATERIAL & WASTE DISPOSAL LOCATION	CONCRETE WASHOUT	DUST CONTROL	SEDIMEN' TRAP
PRE-GRADING			•		•		•		•	•		•	•
CUT AND FILL QUANTITIES	•	•		•				•				•	•
UNDERGROUND WORK												•	
STORM DRAIN IMPROVEMENTS						•					•	•	
CURB & GUTTER							•					•	
STREET IMPROVEMENTS					•							•	
POST CONSTRUCTION	•	•	•										

CUP22-0011/Fuji Battery Storage Exhibit F: Grading and Drainage Plan









CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation



CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation



CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation



CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation



CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation



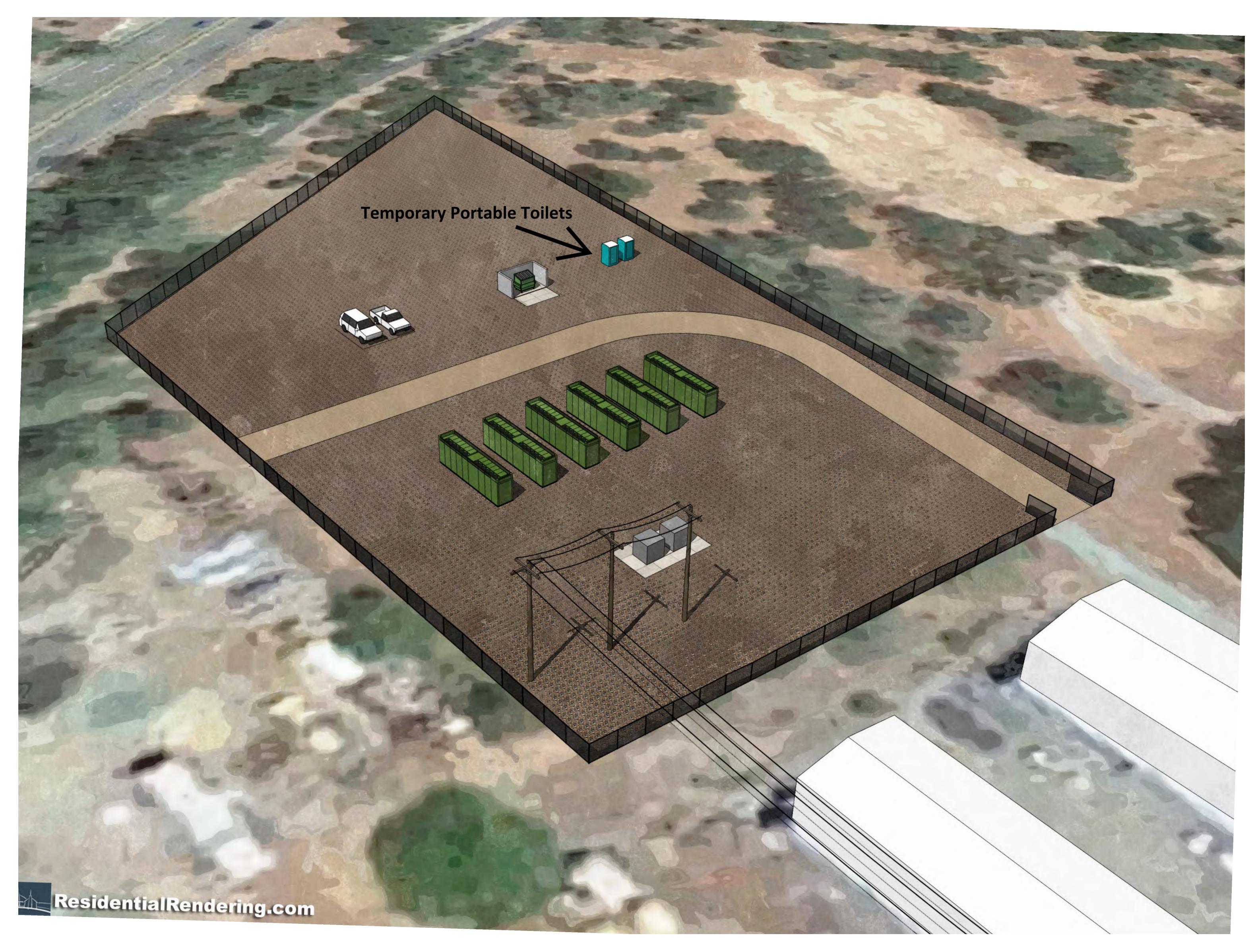


CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation



CUP22-0011/ Fuji Battery Storage Exhibit H: Photosimulation





VISUAL IMPACT ASSESSMENT

Fuji Battery Storage Facility

VIA emorandum

ctober 2024

El Dorado County CA

Prepared by: Date: ctober 8 2024
Amberly organ

EC RP En ironmental Consulting

Senior En ironmental Planner

Table of Contents

1	1.1 Purpose of Report and Assessment ethodology				
2	Establishment Phase				
3	Inventory Phase				
4	Analysis Phase4.1 E aluation of Visual Impact				
5	Mitigation Phase (Environmental Commitments)				
Lis	st of Figures				
Fiç	gure 1: ocaiton and Vicinty ap gure 2: Site ayout gure 3: Vie ocations	2 3 .5			

List of Appendices

Appendix A: Scoping uestionnaire

1 Introduction

1.1 Purpose of Report and Assessment Methodology

he purpose of this isual impact assessment VIA memorandum is to document potential isual change in the Area of Visual Effect AVE. his memorandum follo s the guidance outlined in the publication *Guidelines for the Visual Impact Assessment of Highway Projects* published by the Federal High ay Administration FH. A in anuary 2015. he formatting of this template is aligned ith the directions and examples included in the *Caltrans 2023 VIA Handbook Handbook* a ailable at: Visual Impact Assessment VIA for Projects on State High ay System Caltrans

2 Establishment Phase

2.1 Project Location and Setting

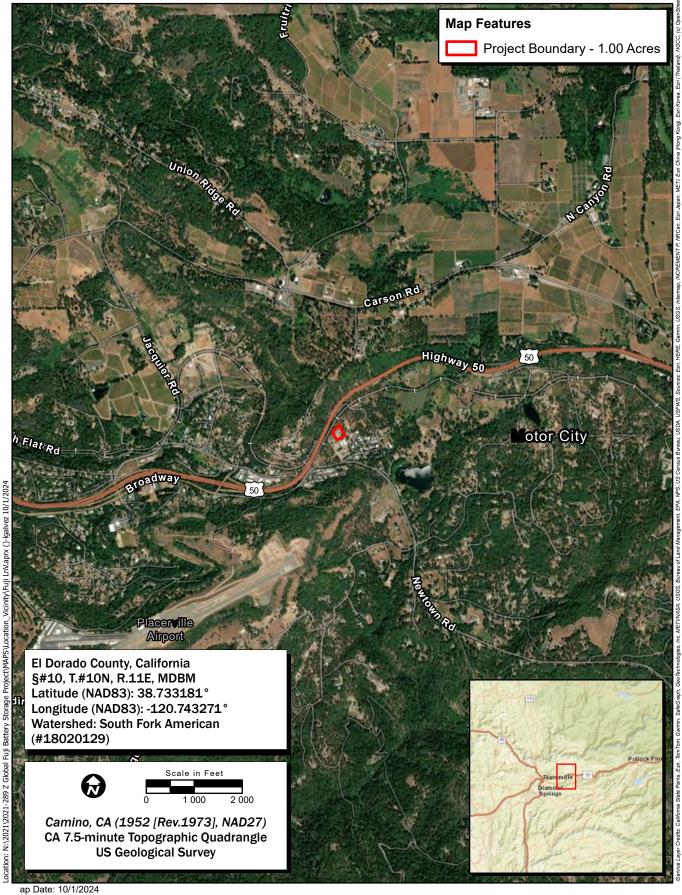
he project location and setting pro ide the context for determining the type of changes to the existing isual en ironment. he proposed project is located on an approximately 1-acre portion of the parcel located at 3073 Ne ton Road Placer ille El Dorado County California. he project area corresponds to a portion of Section 10 o nship 10 North and Range 11 East ount Diablo Base and eridian ithin the Camino California 7.5-minute uadrangle Figure 1: Project ocation and Vicinity.

he parcel is characteri ed by highly disturbed industrial uses ith large arehouse type buildings pa ed areas gra el storage/storage piles natural stone stac s for resale small office buildings and truc par ing. he lot slopes to the south from High ay 50 and north from Ne ton Road. he area bet een High ay 50 and the parcel is hea ily co ered ith trees and natural egetation. he site itself has been mostly cleared ith a fe remaining trees to ards the center near the to office buildings.

2.2 Project Description

he project proposes the construction of a battery energy storage system BESS facility and security fence—ithin the northern portion of the existing parcel. he BESS—ill consist of up to 5 mega—att alternating current o—er a 4-hour period for a total energy reser—oir of 20 mega—att hours. he storage system—ill consist of se—en battery storage containers—each situated—ithin an enclosure measuring 23 feet long by 5 feet—ide and 8 feet tall. Po—er to the enclosures—ill be pro—ided by connecting to an onsite ser—ice station transformer—ith connection lines installed abo—e and belo—ground—Figure 2: Site layout—he facility—ill be decommissioned after 30 years—and the land—ill be returned to pre-project conditions.

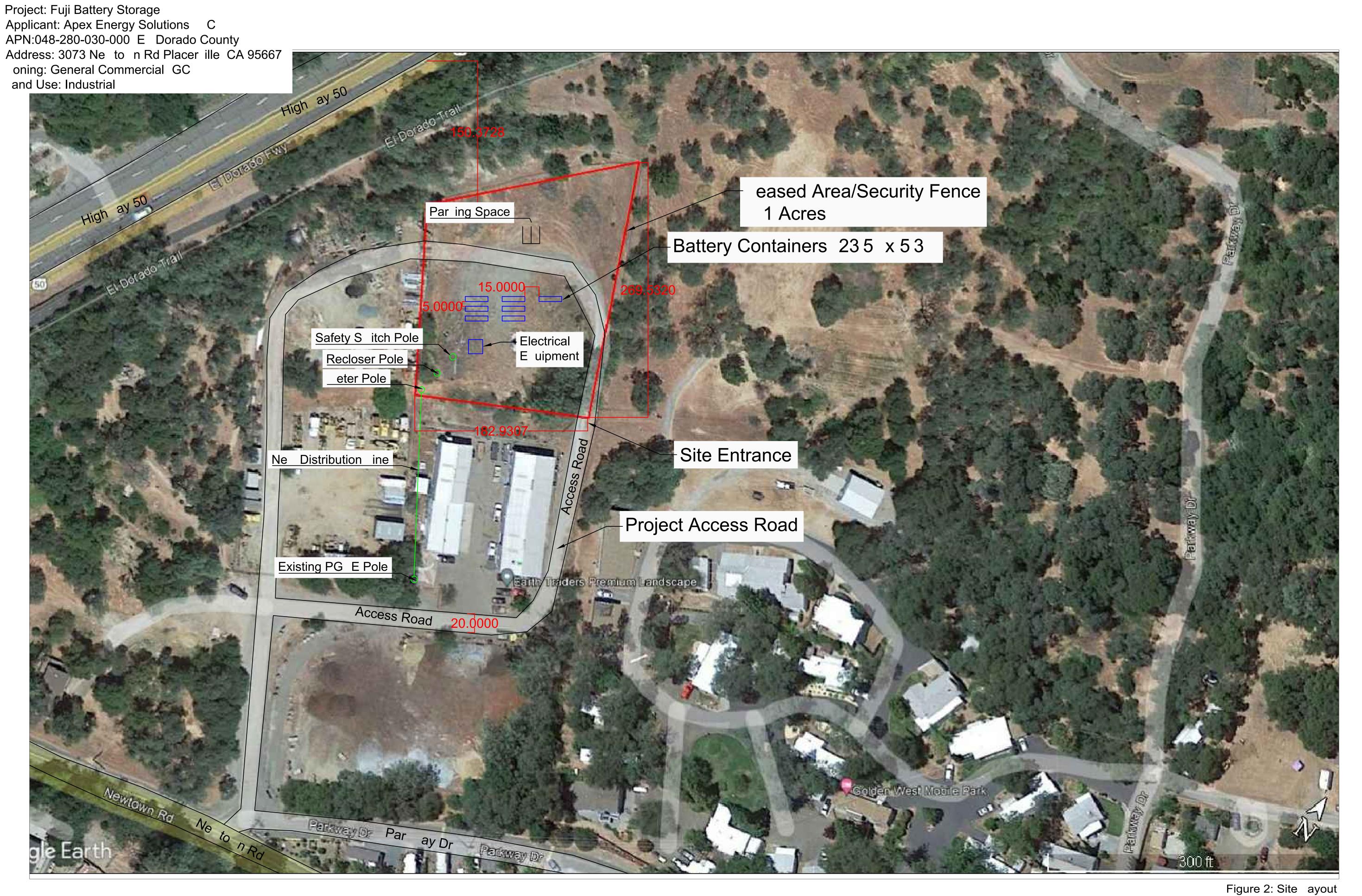
CUP22-0011/Fuji Battery Storage Exhibit I: Visual Impact Report



ECORP Consulting, Inc.

Figure 1. Project Location and Vicinity

Exhibit I: Visual Impact Report



FU I BA ER PR EC

C NFIDEN IA D CU EN S

THE INFORMATION EMBODIED ON THIS DRAWING IS
STRICTLY CONFIDENTIAL AND IS SUPPLIED WITH THE
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WRITTEN CONSENT OF ZGLOBAL, INC.

REV.	В	DESCRIP I N	DA E	APPR D B
0	I	SUB I A 1	01/18/22	

1 inch Scale to Confirm 24 x36 Plot



604 SUTTER ST, STE 250 FOLSOM, CA 95630 Phone: 916.985.9461 Fax: 916.985.9467

HESE DRA INGS AND SPECIFICA I NS HAVE BEEN PREPARED B G BA INC. F R HEIR E C USIVE USE IN ACC RD I H SEC. 6737.3 F HE 2012 PR FESSI NA ENGINEERS AC F HE S A E F CA IF RNIA

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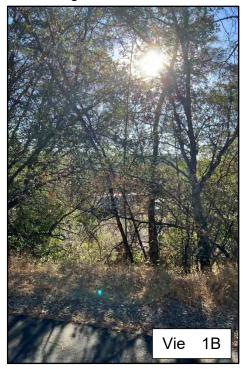
2.3 Description of Area of Visual Effect

As described abo e the project site is in a hea ily de eloped area that is currently being used for industrial purposes. he site sits on a slope ith High ay 50 north and upslope and Ne ton Road south and do nslope from the project area. ypically ie er response to a project is discussed in the form of ie points. hese ie points are representations of public ie s of the project from locations on public land or public road ays. Ho e er the proposed project area is located behind a landscape material stoc yard Earth raders and is not isible from most public antage points. he only areas that the project may be isible from are Ne ton Road at the Earth raders dri e ay High ay 50 a short portion of the El Dorado rail and Golden est obile Home Par See Figure 3: Vie ocations hose four locations are discussed belo .

<u>High ay 50</u> -From High ay 50 the thic tree and egetation co er in the foreground almost completely bloc s any ie s of the project site. ypical speeds along this segment of High ay 50 are in excess of 55 miles per hour only allo ing ehicle occupants approximately 1-2 seconds of ie ing. hen combined ith the substantial egetation screening bet een the High ay and the project site it as determined that tra elers along this stretch of the free ay ould not be able to safely ie the proposed project. No photo of this location as pro ided due to safety concerns along the road ay.

El Dorado rail- Recreational users along the El Dorado rail may ha e obstructed ie s of the project site. Vie s 1A and 1B belo sho s the ie from the El Dorado rail portion that is directly behind the project site and adjacent to US 50. he area that the project site is isible from the trail is approximately 120 feet long and is partially obstructed by trees and egetation. As sho n belo in Vie 1A and 1B the ie has nati e egetation and trees in the fore ground the highly disturbed project area in the middle ground and tree co er and egetation in the bac ground.





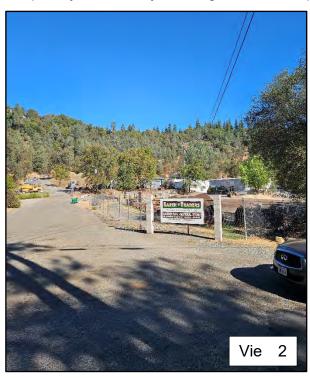


ECORP Consulting, Inc.

Figure 3. View Locations

he portion of the project site that is isible is industrial in nature ith a gra el lot metal storage/shipping containers semi-truc s hea y e uipment and a arehouse.

<u>3073 Ne ton Road</u>- he project site is proposed for the north-eastern portion of this location behind the existing business. From this location the project ill not be isible due to the large mature trees and the to arehouse buildings located in the middle ground of the ie Vie 2. Vie s to the east and est of Vie 2 location are completely bloc ed by existing trees and topography.





Golden est obile Home Par - he Golden est obile Home Par is located to the east of the Earth raders property. Due to trees planted along the estern portion of the project site ie s from the mobile home par are obstructed. he only residence that ould ha e a ie to the project site are those that are located in the bac part of the mobile home par . Specifically there is one residence that loo s directly out to ards the project site ho e er as sho n abo e in Vie 3 trees along the property line almost completely obstruct ie s to the project site.

3 Inventory Phase

3.1 Description of Landscape Visual Character and Quality

he Visual Impact Assessment Handboo describes landscape isual character as character that is created by the ay the physical features of the landscape come together and can be defined as a distinct recogni able and consistent pattern of elements in the landscape that ma es one landscape different from another. Although landscape character is also about experience and sense of place it is not about opinions or judgement on hether one landscape is considered better or orse than

another. As sho in Figure 2 the project site has been significantly altered from the natural conditions and physical features of the landscape are no longer present or cohesi e ith the surrounding areas that ould form a landscape pattern. arge areas ha e been cleared of egetation and graded to create flat gra el lots arehouse pads and par ing areas.

he Visual Impact Assessment Handboo describes landscape uality as the ie ers o erall aesthetic impression of a ie or landscape. here isible most ie s of the project site are obstructed or screened by trees or existing commercial site uses. Gi en the highly disturbed nature of the project site and intrusi e features of the existing commercial uses the isual uality of the project site is considered lo in comparison to the isual uality in nearby areas.

4 Analysis Phase

4.1 Evaluation of Visual Impact

he proposed project is not located ithin a scenic ista or is not isible from a designated scenic high ay. he project is located on a site that is currently being used as a landscape material stoc yard and ill be consistent ith the features already associated ith that business and corresponding facilities. As discussed in Section 2.3 ie s of the project site are limited due to the surrounding egetation topography and existing structures. he project ill be located ithin an area that is currently being used as a gra el par ing lot for commercial truc s and ill not in ol e damage or remo al of scenic resources including but not limited to trees roc outcroppings and historic buildings. Additionally the project does not include lighting and ill not create a ne source of light or glare for the site. Additionally the project consists of features that ill be in use for approximately 30 years after hich ill be decommissioned and the land ill be returned to the natural state.

erall in comparison to existing uses of the project site the proposed project is not expected to change the site s isual uality or characteristics. ith existing screening egetation topography and current site uses already limiting ie s of the project site the percei ed isual change caused by project features ill be lo .

5 Mitigation Phase (Environmental Commitments)

5.1 Recommendations for Environmental Commitment Measures

En ironmental commitments ha e been proposed to lessen the isual impact of the project hich may also help generate public acceptance of a project.

he follo ing en ironmental commitments can a oid or minimi e negati e isual effects and/or impro e aesthetics:

o further reduce isibility of the project infrastructure all ne battery storage containers shall be painted in earth tones using non-reflecti e paint.

Visual Impact Assessment emorandum for Fuji Battery Storage Project 10/8/24

Appendix A: Scoping Questionnaire



andscape Architecture
Scoping uestionnaire
to Determine
Visual Impact Assessment e el

August 2023

Introduction

his uestionnaire assists the ualified isual impact assessment VIA preparer i.e. California icensed andscape Architect in determining hether a VIA report is needed in estimating the potential isual impacts of a proposed project on the en ironment and in understanding the degree and breadth of the possible isual impact issues. he goal is to de elop VIA documentation that is appropriate to the scale of the project and is thorough concise and defensible.

Enter basic information about the project and its isual context isual resource regulatory context and the expected isual change and sensiti ity in the Baseline Information Form and then consider each of the 12 uestions belo . he resulting score ill ser e as a guide to help determine the appropriate le el of VIA documentation for the project. For some projects ith no or minimal isual impact this uestionnaire is all that is necessary. Both capital and maintenance projects should be re ie ed. Select the response that most closely applies to the proposed project. he score is automatically computed at the bottom of the uestionnaire. he total score should be matched to one of the four groups of scores at the end of the uestionnaire that include recommended le els of VIA documentation i.e. this completed uestionnaire VIA memorandum standard VIA report and ad anced VIA report and reference to associated annotated outlines for these documents.

Use the scoring system as a preliminary guide rather than a substitute for professional analysis on the part of the preparer. Although the total score may recommend a lo er le el of VIA document circumstances associated ith any one of the 12 uestions may indicate the need to ele ate the VIA to a greater le el of detail. For projects on the State High ay System the District andscape Architect should be consulted hen scoping the VIA le el and pro ide concurrence on the findings of this uestionnaire.

Preparer Qualifications

he Standard En ironmental Reference Volume I: Chapter 27-Visual Aesthetics Re ie ebsite lin lists preparer ualifications for conducting the isual impact assessment process:

Scenic Resource E aluations and VIAs are performed under the direction of licensed andscape Architects. andscape Architects recei e formal training in the area of isual resource management ith a curriculum that emphasi es en ironmental design human factors and context sensiti e solutions. hen recommending specific isual mitigation measures andscape Architects can appropriately eigh the benefits of these different measures and consider construction feasibility and maintainability.

his uestionnaire shall be prepared by or under the direct super ision of a California icensed and scape Architect. It shall be signed and stamped by that and scape

Architect and ritten concurrence shall be pro ided by the District andscape Architect for projects on State High ay System.

Project and Visual Context Baseline Information

Project and isual context baseline information is gathered early in the Establishment Phase of the VIA process to identify ey information and issues applicable to the preparation of the VIA Scoping uestionnaire. Should the baseline information change in the course of the project the uestionnaire should be updated accordingly.

Gathering of the baseline information may be accomplished through des top research field reconnaissance coordination ith the Caltrans en ironmental and project de elopment teams and consultation ith ey sta eholders. he Caltrans VIA Handboo <u>ebsite lin</u> includes further information about the Establishment Phase.

Complete the follo ing Baseline Information Form to document the baseline project and isual resource information that as a ailable at the time of preparation of the uestionnaire:

Project and Visual Context Baseline Information Form

Project Name:	Fuji Battery Storage Facility	
EA or EFIS Number	N/A	
Project Location (Dist-Co-Rte-PM):	3073 Ne ton Road Placer ille California	
Questionnaire Preparer Name and CA LA License Number:	Amberly organ N/A	
District Landscape Architect (DLA) Providing Concurrence, CA LA Lic. #:	N/A	
Visual Features of Project and its Alternative(s).	he proposed project is not located ithin a scenic ista or is not isible from a designated scenic high ay. he project is located on a site that is currently being used as a landscape material stoc yard and ill be consistent ith the features already associated ith that business and corresponding facilities. As discussed in Section 2.3 ie s of the project site are limited due to the surrounding egetation topography and existing structures. he project ill be located ithin an area that is currently being used as a gra el par ing lot for commercial truc s and ill not in ol e damage or remo al of scenic resources including but not limited to trees roc outcroppings and historic buildings. Additionally the project does not include lighting and ill not create a ne source of light or glair for the site. Additionally the project consists of features that ill be in use for approximately 30 years after hich ill be decommissioned and the land ill be returned to the natural state	
Additional Visual Context Remarks:		
Regulatory Framework		
Potential Agencies that may have to be Involved:	☐ Federal ☐ State ☒ ocal ☐ ribal ☐ ther Notes: Not for Caltrans for City use only	

Visual Change and Sensitivity

Landscape Observations:	□ ater □ Visually dominant landforms ☑ Natural egetation □ Visually Appealing Structures □ ther features of interest Notes: Site currently being used for landscape material stoc yard
Impact of Project on Natural, Cultural, and Existing Project Environments:	☐ Highly compatible ☐ oderately compatible ☐ Not compatible ☒ ther Notes: natural features are not highly present on site due to current use
Landscape Context and Development Patterns:	□ Natural/Unde eloped □ Rural □ Suburban □ Urban Notes:
Scenic, Visual and Historic Resource(s) within the Area of Visual Effect:	☐ fficially designated State Scenic High ay ☐ Eligible Scenic High ay ☐ Visual resources ☐ Federally or other ise designated historic scenic resource Notes: None
Expected Agency Involvement:	ocal in ol ement
Expected Public Feedback:	 □ Scenic resources identified as important □ No public feedbac Notes:

Regulatory Context

1. Does the project s aesthetic approach appear to be consistent ith applicable la s ordinances regulations policies or standards

Although the State is not re uired to comply ith regional and local planning ordinances and other regulations these documents are critical in understanding the importance that communities place on isual resources. he Caltrans En ironmental Planning branch may ha e copies of the planning documents that pertain to the project. If not this information can be obtained by contacting the local planning department.

Select a Response Score

- o o Consistency 4 Points
- o oderate Consistency 3 Points
- o High Consistency 2 Points
- Not Applicable 1 Point
- 2. ill permits be re uired by outside regulatory agencies i.e. federal state or local

Permit re uirements can ha e an unintended conse uence on the isual en ironment. Anticipated permits as ell as specific permit re uirements may be determined by tal ing ith the project En ironmental Planner and Project Engineer. Note: coordinate ith the Caltrans representati e responsible for obtaining the permit prior to communicating directly ith any permitting agency.

Select a Response Score

- es both federal and state or multiple permits re uired 4
 Points
- es either federal or state or federal and local or state and local 3 Points
- o es local or multiple local only 2 Points
- o No 1 Point

2

Visual Change

3. ill the project character be compatible ith the isual character of the existing landscape

Consider the types of ad erse changes to the scenic integrity of the landscape caused by the project. E aluate the scale and extent of the project features compared to the surrounding scale of the community. Is the project li ely to gi e an urban appearance to an existing rural or suburban community

Select a Response Score

- o No Compatibility 4 Points
- o o Compatibility 3 Points
- o oderate Compatibility 2 Points
- o High Compatibility 1 Point
- ill the project contrast ad ersely ith the memorability i idness natural harmony and/or cultural order unity of the existing landscape

E aluate the scale and extent of the project features compared to the scale of the isual elements ithin the surroundings. Is the project li ely to change the appearance in a ay that is contrasting ith the line color form and texture of the existing landscape isual character

Select a Response Score

- High Ad erse Contrast 4 Points
- o oderate Ad erse Contrast 3 Points
- o No Contrast 1 Point

1

5. ill the project hen ie ed together ith other past or foreseeable projects result in a cumulati e ad erse change in the isual uality or character of the existing landscape

Identify any projects in the area both Caltrans and others that ha e been recently constructed and/or are reasonably foreseeable and/or currently planned for future construction. he indo of time and the extent of area applicable to possible cumulati e impacts should be based on a reasonable anticipation of the ie ing publics a areness of cumulati e change.

Select a Response Score

- Project may result in substantial ad erse cumulati e isual impacts 4 Points
- Project ill result in noticeable ad erse cumulati e isual impacts 3 Points
- Project is unli ely to result in noticeable ad erse cumulati e isual impacts 2 Points
- o Project ill not result in cumulati e impacts 1 Point
- 6. ill the project produce a ne source of substantial light or glare hich ill ad ersely affect daytime or nighttime ie s ithin the area

Identify ne sources of lighting and glare and ho day- and nighttime isual conditions may change.

Select a Response Score

- High potential for ad erse effects 4 Points
- o oderate potential for ad erse effects 3 Points
- o o potential for ad erse effects 2 Points
- No potential for ad erse effects 1 Point

CUP22-0011/Fuji Battery Storage Exhibit I: Visual Impact Report 1

Visual Sensitivity

7. hat is the potential that the project proposal ill be contro ersial ithin the community

Assess the le el of public concern by tal ing ith local agency management and staff familiar ith the affected community s sentiments as e idenced by past projects and/or current information.

Select a Response Score

- o High Potential that project ill be contro ersial 4 Points
- o oderate Potential that project ill be contro ersial 3 Points
- o Potential that project ill be contro ersial 2 Points
- o No Potential that project ill be contro ersial 1 Point
- 8. Ho sensiti e are potential ie er groups li ely to be regarding isible changes proposed by the project

Consider among other factors ho the ie er groups represent the number of ie ers ithin the group probable ie er expectations acti ities ie ing duration and orientation. he expected ie er sensiti ity le el may be scoped by applying professional judgment and by soliciting information from other Caltrans staff local agencies and community sta eholders familiar ith the affected community s sentiments and demonstrated concerns.

Select a Response Score

- High Sensiti ity 4 Points
- o oderate Sensiti ity 3 Points
- o o Sensiti ity 2 Points
- No Sensiti ity 1 Point

2

 hat le el of local concern is there for the types of specific project features e.g. bridge structures large exca ations sound barriers or median planting remo al and construction impacts that are proposed

Certain project impro ements can be of special interest to local citi ens causing a heightened le el of public concern and re uiring a more focused isual analysis.

Select a Response Score

- o High e el of Concern 4 Points
- o odern e el of Concern 3 Points
- o e el of Concern 2 Points
- o No Concern 1 Point

10. Are there federally state locally designated scenic or historic resources or other isual resources ithin the project area of isual effect i.e. ie shed

For example: protected ie sheds isually sensiti e public use areas national historic/scenic trails historic sites or structures scenic designated ie points ild and scenic ri ers state scenic high ays or federal scenic by ays or potential isual resources such as stands of trees roc outcroppings etc.

Select a Response Score

- o ultiple designated scenic resources 4 Points
- ultiple potential isual resources or a single designated scenic resource 3 Points
- ne potential isual resource 2 Points
- No identifiable scenic resources 1 Point

CUP22-0011/Fuji Battery Storage Exhibit I: Visual Impact Report 2

Design Process Considerations

11. ill the project sponsor or public benefit from a more detailed isual analysis in order to help reach consensus on a course of action to address potential isual impacts

Consider the proposed project features possible isual impacts and probable en ironmental commitments.

Select a Response Score

- o High Benefit 4 Points
- o oderate Benefit 3 Points
- o o Benefit 2 Points
- o No Benefit 1 Point
- 12. ill the project li ely re uire design changes to reduce the extent of isual resource impacts

Consider design changes and enhancements such as realignment additional alignment alternati es ertical profile adjustments extensi e landscaping architectural treatment color and texture treatments and/or lighting of abo eground structures.

Select a Response Score

- o Extensi e changes and/or redesign 4 Points
- o Some redesign or minimi ation measures 3 Points
- o inimal design changes 2 Points
- No design changes 1 Point

Highlight the number belo and press FN F9 to calculate the final project score.

Project Score:

Store a copy of this completed uestionnaire in the project file.

Attach a copy of this completed uestionnaire to the VIA report.

18

1

Project Score

Select an utline Based on Project Score

he total score ill indicate the recommended VIA le el for the project. In addition to considering circumstances relating to any one of the 12 uestions that ould justify ele ating the VIA le el also consider any other project factors that ould influence le el selection.

Score 12-18 VIA uestionnaire

No isual resource related regulatory re uirements. No or negligible isual changes to the en ironment are proposed. None or minimal public concern has been identified. his **Questionnaire** ith rationale for selected responses to uestions in the a ailable spaces after each uestion along ith a statement of no isual resource impact is appropriate and pro ides a sufficient rationale hy a technical study is not re uired.

Score 19-28 VIA emorandum

Very limited isual resource related regulatory re uirements. inor isual changes to the en ironment are proposed. inor public concern from the public may be expected. A <u>VIA Memorandum</u> is appropriate in this case. he VIA emorandum should briefly describe project features impacts and any en ironmental commitment measures. Visual simulations are not necessary. Go to the <u>Directions for using and accessing VIA emorandum Annotated utline ebsite lin</u>.

Score 29-38 Standard VIA Report

Se eral isual resource related regulatory re uirements. oderately noticeable isual changes to the en ironment are proposed. oderate public concern may be expected. A fully de eloped **Standard VIA Report** is appropriate. he report should describe in detail the project s isual attributes its isual impact and potential en ironmental commitment measures. Visual simulations are recommended. his report ill li ely recei e public re ie . Go to the <u>Directions for using and accessing the Standard VIA Annotated utline ebsite lin</u>.

Score 39-48 Ad anced VIA Report

Extensi e isual resource related regulatory re uirements and clearly noticeable changes to the en ironment are proposed. oderate to high public concern may be expected. A fully de eloped <u>Advanced VIA Report</u> is appropriate. he report should describe in detail and numerically score the project s isual change and sensiti ity its isual impact and any en ironmental commitments proposed. Visual simulations are re uired. It is appropriate to alert the Project De elopment eam to the potential for highly ad erse impacts and to consider project alternati es to a oid those impacts. his

technical study ill recei e close public re ie . Go to the <u>Directions for using and accessing the Ad anced VIA Annotated utline ebsite lin .</u>